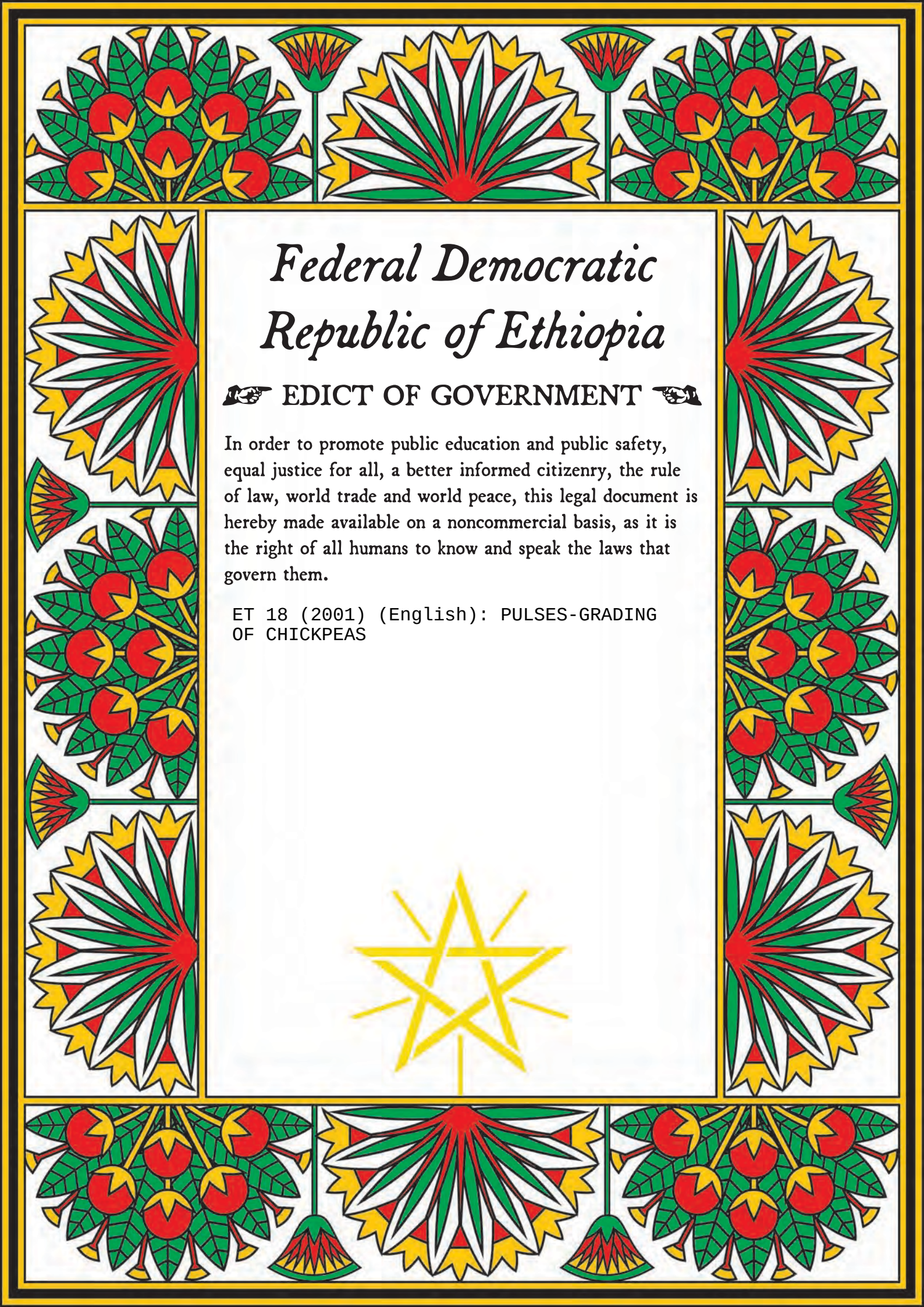




Federal Democratic Republic of Ethiopia

✎ EDICT OF GOVERNMENT ✎

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ET 18 (2001) (English): PULSES-GRADING
OF CHICKPEAS



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Pulses — Grading of

ES 18:2001

Foreword

This Ethiopian Standard has been prepared under the direction of the Technical Committee for Cereals, pulses and derived products (TC 11) and published by the Ethiopian Standards Agency (ESA).

The standard is a reaffirmation for reprint of the Ethiopian Standard ES 18:2001, Pulses - Grading of Chickpeas, with some editorial changes without altering the technical contents in the former text.

Pulses — Grading of chickpeas

1 Scope

This Ethiopian Standard specifies the requirements for grading of whole or split chickpeas which are intended for human consumption.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Ethiopian Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Ethiopian Standard are encouraged to investigate the possibility of applying the most recent editions of the Ethiopian Standards indicated below. Registers of currently valid standards are maintained in the Quality and Standards Authority of Ethiopia.

ES ISO 520:2001 *Cereals and pulses – Determination of the mass of 1000 grains.*

ES ISO 605:2001, *Pulses – Determination of impurities, size, foreign odors, insects, species and varieties – Test methods.*

ES ISO 665:2001, *Oilseeds – Determination of moisture and volatile matter content.*

ES ISO 13690:2001, *Cereals, pulses and milled products – Sampling of static batches.*

ES ISO 6322-1:2001, *Storage of cereals and pulses- Part 1: General recommendations in keeping cereals.*

ES ISO 6322-2:2001, *Storage of cereals and pulses- Part 2: Essential requirements.*

ES ISO 6322-3:2001, *Storage of cereals and pulses- Part 3: Control of attack of pests.*

ES ISO 6639-1:2001, *Cereal and pulses – Determination of hidden insect infestation - Part 1: General principles.*

ES ISO 6639-2:2001, *Cereal and pulses – Determination of hidden insect infestation - Part 2: Sampling.*

ES ISO 6639-3:2001, *Cereal and pulses – Determination of hidden insect infestation - Part 3: Reference method.*

ES ISO 6639-4:2001, *Cereal and pulses – Determination of hidden insect infestation - Part 4: Rapid method.*

3 Definitions

For the purpose of this standard the definitions in ES 678 shall apply.

4 Types

4.1 Chickpeas shall be classified into two classes as follows:

4.1 By size

- a) Big chickpeas
- b) Small chickpeas

4.2 By color

- a) Brown
- b) Black
- c) Mixed colors
- d) Cream/white
- e) Grey

5 Requirements

5.1 General

5.1.1 Each class of chickpea shall be clean, sound, uniform in size with natural color or appearance and free from foreign or abnormal odors.

5.1.2 Chickpeas shall not contain more than 14% of moisture by mass when determined in accordance with the method of test specified in ES ISO 665.

5.1.3 Each class of shall be free from weevils, other living insects or dead insect fragments, hidden insect infestation insect webbing when determined in accordance with the method of test specified in ES ISO 605 and/or ES ISO 6322/ 1 to 3 .

5.1.4 Each class of chickpea shall not contain more than 0.05% by mass of toxic seeds of crofolaria (Crofolria soo), Corn cockle Agrostemma gühago L.) castor beans (Rnus communis L.) and jimson weed seeds (Datura soo. in a given sample of chickpeas taken in accordance with the method of test specified in ES ISO 605.

5.1.5 Split chickpeas or chickpeas without seed coats shall not contain more than 1% by mass, moisture content when determined in accordance with the method of test specified in ES ISO 665.

5.2 Grades

5.2.1 Principles

The following principles shall be observed in establishing grades for chickpeas

5.2.1.1 Defects and impurities for whole chickpeas shall be weevil damaged, damaged and splits, shrivelled chickpeas and chickpeas with cracked seed-coats and foreign material.

5.2.1.2 Chick-peas shall comply with the grade requirements specified in Table 1

Table 1. Grade and grade requirements for chick-peas

Maximum limits of impurities % by mass						
Grade	Damaged Chick-peas		Splits	Shrivelled chick-peas	Chick-peas with cracked seed-coats	Foreign matter
	badly damaged	Total				
1	0.3	1.0	0.5	2.0	3.0	0.2
2	0.8	1.5	1.0	4.0	5.0	0.5
3	1.5	2.0	1.5	8.0	7.0	0.5
4	Sub- standard grade chickpeas are chickpeas that do not meet the requirements specified in clause 5					

5.2.1.3 For export of chickpeas, the lowest grade shall be grade 3

5.3 Size

5.3.1 The size of each class of chickpea shall be graded using round holed nominal aperture sieve sizes of the following dimension 9.0, 8.0, 7.0 and 6.0 mm when determined in accordance with the method of test specified in ES ISO 605.

5.3.2 A minimum of 75% of chickpea seeds shall be retained over 8.0 mm sieve sizes or 100 seeds of chickpea shall weigh 34 to 35 g to be potential good export quality.

5.4 Pesticide residues

Dry peas shall comply with the maximum pesticide residue limits specified in Table 2. The test method for determining the pesticide residues limits is under preparation.

Table 2 - Maximum pesticide residue limits in chick-pea (dry)

Pesticide	Value		Symbols		
TRIADIMEFON	MRL (mg/kg)	0.05	(*)		
TRIADIMENOL	MRL (mg/kg)	0.05	(*)		
GLUFOSINATE-AMMONIUM	MRL (mg/kg)	2			
QUINTOZENE	MRL (mg/kg)	0.2			

5.5 Tests for insect infestation and contamination

Insect infestation and rodent contamination shall be determined in accordance with the method of test specified in ES ISO 6639 Parts 1 to 4.

5.6 Handling

Chickpeas shall be handled in accordance with the method of storage specified in ES ISO 6322/1 to 3.

5.7 Mass of 1000 grains

The quality of chickpea grains shall also be determined by the mass of 1000 grains in accordance with the method of test specified in ES ISO 520.

6 Sampling

Sampling of chickpeas shall be carried out in accordance with the method of test specified in ES ISO 13690.

7 Packing

Chickpeas shall be packed in new, clean, sound, moisture proof containers as specified in ES 666.

8 Labelling and marking

8.5 Labelling

Each container of chickpeas shall be labelled with the following information:

- a) Name of the product;
- b) Name and address of producer, exporter/importer;
- c) Size and color of the product;
- d) Country of origin;
- e) Net weight in kgs ;
- f) Batch or identification code; and
- g) Any other information required by the purchaser.

8.6 Marking

Each container of chickpeas that is in compliance with this Ethiopian Standard shall bear the Quality Mark upon approval by the Quality and Standards Authority of Ethiopia.

9 Compliance with the standard

A lot of chickpea grains shall be deemed to comply with this Ethiopian Standard if upon inspection and testing the provision in clause 4, 5, 7 and 8 are satisfied.



Organization and Objectives

The Ethiopian Standards Agency (ESA) is the national standards body of Ethiopia established in 2010 based on regulation No. 193/2010. ESA is established due to the restructuring of Quality and Standards Authority of Ethiopia (QSAE) which was established in 1970.

ESA's objectives are:-

- ❖ Develop Ethiopian standards and establish a system that enable to check whether goods and services are in compliance with the required standards,
- ❖ Facilitate the country's technology transfer through the use of standards,
- ❖ Develop national standards for local products and services so as to make them competitive in the international market.

Ethiopian Standards

The Ethiopian Standards are developed by national technical committees which are composed of different stakeholders consisting of educational Institutions, research institutes, government organizations, certification, inspection, and testing organizations, regulatory bodies, consumer association etc. The requirements and/or recommendations contained in Ethiopian Standards are consensus based that reflects the interest of the TC representatives and also of comments received from the public and other sources. Ethiopian Standards are approved by the National Standardization Council and are kept under continuous review after publication and updated regularly to take account of latest scientific and technological changes.

Orders for all Ethiopian Standards, International Standard and ASTM standards, including electronic versions, should be addressed to the Documentation and Publication Team at the Head office and Branch (Liaisons) offices. A catalogue of Ethiopian Standards is also available freely and can be accessed in from our website.

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International Involvement

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